

Please add Claims 96-185 as follows:

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--96. C_{70} in macroscopic amounts.

97. The C_{60} of Claim 86 wherein the C_{60} is present in amounts that are capable of being detected by IR.

98. The C_{60} of Claim 86 wherein the C_{60} is present in amounts that are capable of being detected by UV absorption.

99. The C_{60} of Claim 86 wherein the C_{60} is present in amounts sufficient to obtain an X-ray diffraction pattern thereof.

100. The C_{70} of Claim 96 in which the C_{70} is present in amounts that are capable of being detected by UV.

101. The C_{70} of Claim 96 in which the C_{70} is present in amounts that are capable of being detected by IR.

subf5
102. Macroscopic amounts of substantially pure C_{60} .

103. Macroscopic amounts of substantially pure C_{70} .

104. A formed or molded product comprising C_{70} , said C_{70} being present in macroscopic amounts.

105. A free flowing particulate comprising C_{70} , said C_{70} being present in macroscopic amounts.

106. A formed or molded product comprising C_{60} , said C_{60} being present in macroscopic amounts.

107. A free flowing particulate comprised of C_{60} , said C_{60} being present in macroscopic amounts.

108. The solid carbon product of Claim 53, wherein the recovered C_{60} molecules in said solid are in macroscopic amounts.

subf4
109. The solid carbon product of Claim 53 wherein recovered C_{60} in said solid carbon products are in amounts that are capable of being detected by IR.

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110. The solid carbon product of Claim 53 wherein the recovered C₆₀ in said solid carbon products are in amounts that are capable of being detected by UV.

111. A solid comprising C₆₀, said C₆₀ being present in macroscopic amounts.

112. A solid comprising C₇₀, said C₇₀ being present in macroscopic amounts.

113. A sooty product comprising C₆₀, the C₆₀ in said sooty product being present in sufficient concentration to allow macroscopic amounts of said C₆₀ to be separated therefrom.

114. A sooty product comprising C₇₀, the C₇₀ in said sooty product being present in sufficient concentrations to allow macroscopic amounts of said C₇₀ to be separated therefrom.

115. The sooty product of Claim 113, in which the C₆₀ is present in amounts that are capable of being detected by IR.

116. The sooty product of Claim 114 in which the C₇₀ is present in amounts that are capable of being detected by IR.

117. The sooty product of Claim 113 in which the C₆₀ is present in amounts that are capable of being detected by UV.

118. The sooty product of Claim 114 in which the C₇₀ is present in amounts that are capable of being detected by UV.

119. A sooty carbon product prepared by the process comprising:

(a) vaporizing a carbon source in the presence of an inert gas to provide a vapor of carbon atoms,

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b7d

(b) quenching said vapor of carbon in said inert gas under conditions effectiv to nucleat and condense said vapor of carbon atoms into a sooty carbon product comprising C₆₀ molecul s, said C₆₀ molecules being present in said sooty carbon in sufficient concentrations to allow macroscopic amounts of C₆₀ to be separated from said soot.

120. The sooty carbon product of Claim 119 in which the C₆₀ is present in amounts that are capable of being detected by IR.

121. The sooty carbon product of Claim 119 in which the C₆₀ is present in amounts that are capable of being detected by UV.

122. The sooty carbon product of Claim 113, additionally comprising C₇₀.

123. The sooty carbon product of Claim 119 additionally comprising C₇₀.

124. The sooty carbon product of Claim 119 in which the carbon source subject to vaporization in step (a) is graphite or amorphous or glassy carbon.

125. The sooty carbon product of Claim 119 in which the carbon source subject to vaporization in step (a) is graphite.

126. The sooty carbon product of Claim 119 in which the carbon source subject to vaporization in step (a) is graphite rods.

127. The sooty carbon product of Claim 119 in which the carbon source in step (a) is vaporized in an evacuated reactor.

128. The sooty carbon product of Claim 119 in which the carbon source in step (a) is vaporized in an evacuated bell jar.

129. The sooty carbon product of Claim 119 in which the inert gas is a noble gas.

130. The sooty carbon product of Claim 129 in which the noble gas is helium or argon.

131. The sooty carbon product of Claim 119 in which the process is conducted at a pressure sufficient to nucleate said carbon vapor.

132. The sooty carbon product of Claim 131 in which the pressure ranges from 60 torr to 400 torr.

133. The C₆₀ of Claim 86 in which the C₆₀ is present in amounts sufficient to take a micrograph.

134. The solid C₆₀ of Claim 111 in which the C₆₀ is present in amounts sufficient to take a micrograph.

135. The C₆₀ of Claim 102 in which the C₆₀ is present in amounts capable of being detected by IR.

136. The C₆₀ of Claim 102 in which the C₆₀ is present in amounts capable of being detected by UV.

137. The C₆₀ of Claim 102 in which the C₆₀ is present in amounts sufficient to obtain an X-ray diffraction pattern thereof.

138. The C₆₀ of Claim 102 in which the C₆₀ is present in amounts sufficient to take a micrograph.

139. The C₇₀ of Claim 103 in which the C₇₀ is present in amounts capable of being detected by UV.

140. The C₇₀ of Claim 103 in which the C₇₀ is present in amounts capable of being detected by IR.

141. A solid carbon product prepared by the process comprising:

(a) evaporating a carbon source in the presence of an inert quenching gas under conditions effective to produce a sooty carbon product containing C₆₀, said C₆₀ being present in said sooty carbon product in sufficient concentration to allow

a macroscopic amount of said C₆₀ to be separated from said sooty product;

(b) collecting the sooty carbon product produced therefrom;

(c) subliming the carbon product comprising C₆₀ from the sooty carbon product; and

(d) condensing the sublimed carbon product comprising C₆₀.

142. The solid carbon product of Claim 141 wherein the sublimation occurs at a temperature ranging from 300°-400°C.

143. The solid carbon product of Claim 142 wherein step (c) comprises heating the carbon product comprising C₆₀ in a vacuum or inert atmosphere at effective sublimation temperatures to extract the carbon product comprising C₆₀ from said sooty carbon product.

144. The solid carbon product of Claim 141 in which the carbon source in step (a) is vaporized in an evacuated reactor.

145. The solid carbon product of Claim 144 in which the carbon in step (a) is vaporized in an evacuated bell jar.

146. The solid carbon product of Claim 141 in which the carbon subject to vaporization in step (a) is graphite.

147. The solid carbon product of Claim 141 in which the carbon subject to vaporization in step (a) is graphite rods.

148. The solid carbon product of Claim 141 wherein the carbon source in step (a) is vaporized by passing an electric current of sufficient intensity to produce a sooty carbon product.

149. The solid carbon product of Claim 148 wherein the electrical current is about 100 amps.

150. The solid carbon product of Claim 141 wherein the inert quenching gas of step (a) is a noble gas.

151. The solid carbon product of Claim 141 wherein the carbon source in step (a) is vaporized at a pressure ranging from 50 torr to 400 torr.

152. The solid carbon product of Claim 151 wherein the carbon source is vaporized in step (a) at approximately 100 torr.

153. The solid carbon product of Claim 53 wherein the collecting substrate in step (b) is a glass surface.

154. The solid carbon product of Claim 150 wherein the noble gas is helium or argon.

155. The solid carbon product of Claim 141 wherein C₇₀ is additionally present.

156. The solid carbon product of Claim 155 wherein C₇₀ is separated from C₆₀ by sublimation, fractionally, crystallization, column chromatography, fractional crystallization, column chromatography, capillary electrophoresis, HPLC, preparative thin layer chromatography, crystallization, or extraction.

157. The solid carbon product of Claim 155 wherein the C₇₀ is separated from C₆₀ by sublimation.

158. The solid carbon product of Claim 141 wherein the C₆₀ is present in amounts capable of being detected by IR.

159. The solid carbon product of Claim 141 wherein the C₆₀ is present in amounts capable of being detected by UV.

160. The solid carbon product of Claim 141 wherein the C₆₀ is present in amounts sufficient to obtain an X-ray diffraction pattern thereof.

161. The solid carbon product according to Claim 141 in which the C₆₀ is present in amounts sufficient to take a micrograph.

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162. The solid carbon product according to Claim 155 wherein the C_{70} is present in macroscopic amounts.

163. The solid carbon product according to Claim 162 wherein the C_{70} is present in amounts that are capable of being detected by UV.

164. The solid carbon product according to Claim 162 wherein the C_{70} is present in amounts that are capable of being detected by IR.

165. A solid comprising macroscopic amounts of crystalline C_{60} .

166. A solid comprising macroscopic amounts of crystalline C_{70} .

167. A carbon product comprising macroscopic amounts of solid C_{60} .

168. A carbon product comprising macroscopic amounts of solid C_{70} .

169. The carbon product of Claim 167 wherein the solid C_{60} is crystalline C_{60} .

170. The carbon product of Claim 168 wherein the solid C_{70} is crystalline C_{70} .

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171. The solid according to Claim 111 wherein C_{60} is present in amounts that are capable of being detected by IR.

172. The solid according to Claim 111 wherein the C_{60} is present in amounts that are capable of being detected by UV.

173. The solid according to Claim 111 wherein the C_{60} is present in amounts sufficient to obtain X-ray diffraction pattern thereof.

174. The solid according to Claim 111 wherein the C_{70} is present in amounts that are capable of being detected by UV.